

UP-HR7.0-12



Specification		
Nominal Voltage	12V	
Watts(15min Rate)	28.4 W at 1.67V/cell	
Dimension	Length	151±1mm (5.95 inches)
	Width	65±1mm (2.56 inches)
	Container Height	94.5±1mm (3.72 inches)
	Total Height (with Terminal)	100±1mm (3.94 inches)
Approx Weight	Approx 2.5 kg (5.51lbs)	
Terminal	T1 / T2	
Container Material	ABS	
Rated Capacity	7.20 AH/0.72A	(10hr, 1.80V/cell, 25°C/77°F)
	7.00 AH/0.875A	(8hr, 1.80V/cell, 25°C/77°F)
	6.40 AH/1.28A	(5hr, 1.75V/cell, 25°C/77°F)
	5.97 AH/1.99A	(3hr, 1.75V/cell, 25°C/77°F)
	5.91 AH/5.91A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	105A (5s)	
Internal Resistance	Approx 20mΩ	
Operating Temperature Range	Discharge: -15~50°C (5~122°F)	
	Change : 0~40°C (32~104°F)	
	Storage : -15~40°C (5~104°F)	
Nominal Operating Temperature Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 2.1A.Voltage. 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage. 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104°F) 103%	
	25°C (77°F) 100%	
	0°C (32°F) 86%	
Self Discharge	Batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required.	

Constant Current Discharge (Amperes) at 25°C (77°F)															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	22.6	15.1	11.7	10.2	8.33	5.99	4.79	2.62	1.81	1.42	1.19	1.01	0.826	0.689	0.387
1.80V/cell	26.4	17.2	12.9	11.0	8.93	6.52	5.11	2.77	1.95	1.51	1.25	1.08	0.875	0.720	0.390
1.75V/cell	29.8	18.8	14.1	11.7	9.28	6.77	5.34	2.87	1.99	1.54	1.28	1.11	0.896	0.738	0.393
1.70V/cell	32.9	20.6	15.0	12.3	9.70	7.03	5.52	2.99	2.07	1.60	1.32	1.13	0.912	0.745	0.401
1.65V/cell	36.2	22.2	15.9	13.1	10.2	7.22	5.70	3.07	2.13	1.64	1.35	1.14	0.930	0.761	0.406
1.60V/cell	40.0	23.7	16.8	14.0	10.8	7.52	5.91	3.17	2.19	1.70	1.38	1.17	0.943	0.768	0.409

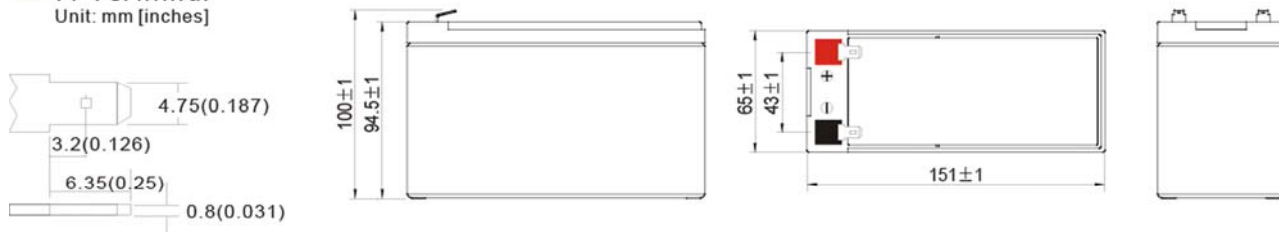
Constant Power Discharge (Watts) at 25°C (77°F)															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	41.4	28.0	21.8	19.1	15.9	11.5	9.24	5.08	3.55	2.79	2.38	2.02	1.62	1.37	0.768
1.80V/cell	47.8	31.3	23.7	20.3	16.8	12.4	9.80	5.34	3.80	2.97	2.47	2.13	1.71	1.43	0.774
1.75V/cell	52.8	33.9	25.5	21.6	17.3	12.8	10.2	5.53	3.86	3.03	2.53	2.19	1.75	1.46	0.780
1.70V/cell	56.6	36.1	26.9	22.5	17.8	13.3	10.5	5.73	4.00	3.13	2.60	2.23	1.78	1.46	0.794
1.65V/cell	61.5	38.6	28.4	23.8	18.7	13.5	10.8	5.86	4.10	3.20	2.64	2.27	1.80	1.49	0.804
1.60V/cell	66.3	40.2	29.3	25.0	19.6	14.0	11.1	6.02	4.22	3.29	2.70	2.32	1.82	1.51	0.807



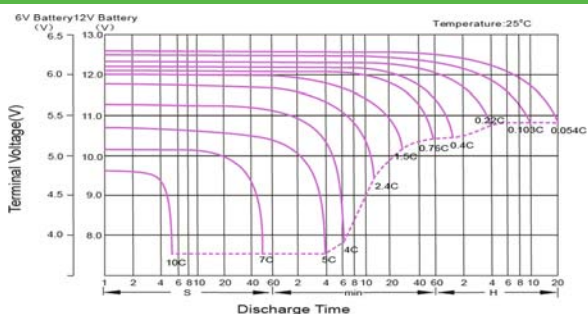
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Dimensions

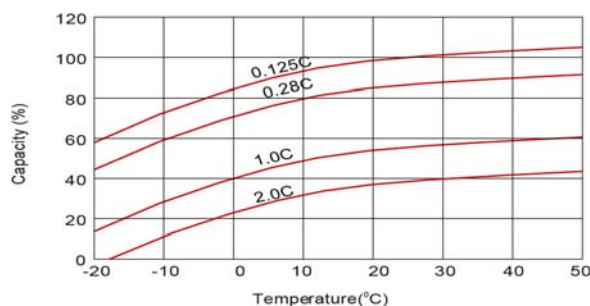
■ T1 Terminal
Unit: mm [inches]



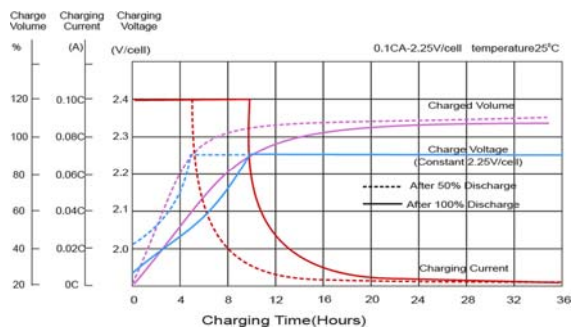
Discharge Characteristics



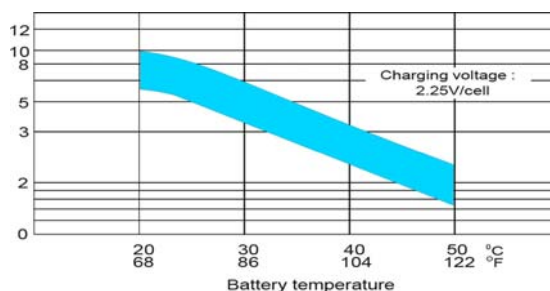
Temperature Effects in Relation to Battery Capacity



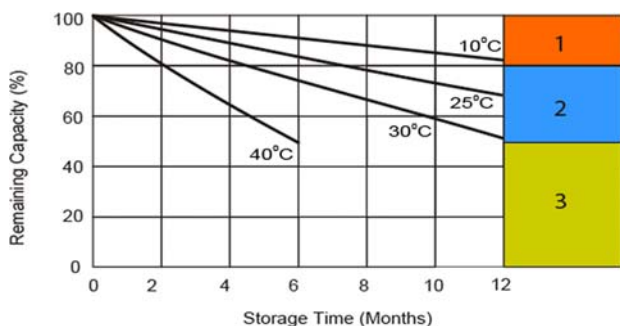
Float Charging Characteristics



Effect of Temperature on Long Term Float Life



Self Discharge Characteristics



- 1** No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required).
- 2** Supplementary charge required before use. Optional charging way as below:
 1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 3. Charged for 8-10 hours at limited current 0.05CA.
- 3** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.

